that the performance objectives of subpart C of this part will be met.

- (4) Covers must be designed to minimize to the extent practicable water infiltration, to direct percolating or surface water away from the disposed waste, and to resist degradation by surface geologic processes and biotic activity.
- (5) Surface features must direct surface water drainage away from disposal units at velocities and gradients which will not result in erosion that will require ongoing active maintenance in the future.
- (6) The disposal site must be designed to minimize to the extent practicable the contact of water with waste during storage, the contact of standing water with waste during disposal, and the contact of percolating or standing water with wastes after disposal.
- (b) Disposal site design for other than near-surface disposal (reserved).

§ 61.52 Land disposal facility operation and disposal site closure.

- (a) Near-surface disposal facility operation and disposal site closure. (1) Wastes designated as Class A pursuant to §61.55, must be segregated from other wastes by placing in disposal units which are sufficiently separated from disposal units for the other waste classes so that any interaction between Class A wastes and other wastes will not result in the failure to meet the performance objectives in subpart C of this Part. This segregation is not necessary for Class A wastes if they meet the stability requirements in §61.56(b) of this part.
- (2) Wastes designated as Class C pursuant to §61.55, must be disposed of so that the top of the waste is a minimum of 5 meters below the top surface of the cover or must be disposed of with intruder barriers that are designed to protect against an inadvertent intrusion for a least 500 years.
- (3) All wastes shall be disposed of in accordance with the requirements of paragraphs (a) (4) through (11) of this section.
- (4) Wastes must be emplaced in a manner that maintains the package integrity during emplacement, minimizes the void spaces between pack-

- ages, and permits the void spaces to be filled.
- (5) Void spaces between waste packages must be filled with earth or other material to reduce future subsidence within the fill.
- (6) Waste must be placed and covered in a manner that limits the radiation dose rate at the surface of the cover to levels that at a minimum will permit the licensee to comply with all provisions of §§20.1301 and 20.1302 of this chapter at the time the license is transferred pursuant to §61.30 of this part.
- (7) The boundaries and locations of each disposal unit (e.g., trenches) must be accurately located and mapped by means of a land survey. Near-surface disposal units must be marked in such a way that the boundaries of each unit can be easily defined. Three permanent survey marker control points, referenced to United States Geological Survey (USGS) or National Geodetic Survey (NGS) survey control stations, must be established on the site to facilitate surveys. The USGS or NGS control stations must provide horizontal and vertical controls as checked against USGS or NGS record files.
- (8) A buffer zone of land must be maintained between any buried waste and the disposal site boundary and beneath the disposed waste. The buffer zone shall be of adequate dimensions to carry out environmental monitoring activities specified in §61.53(d) of this part and take mitigative measures if needed.
- (9) Closure and stabilization measures as set forth in the approved site closure plan must be carried out as each disposal unit (e.g., each trench) is filled and covered.
- (10) Active waste disposal operations must not have an adverse effect on completed closure and stabilization measures.
- (11) Only wastes containing or contaminated with radioactive materials shall be disposed of at the disposal site.
- (b) Facility operation and disposal site closure for land disposal facilities other than near-surface (reserved).
- $[47\ FR\ 57463,\ Dec.\ 27,\ 1982,\ as\ amended\ at\ 56\ FR\ 23474,\ May\ 21,\ 1991;\ 56\ FR\ 61352,\ Dec.\ 3,\ 1991;\ 58\ FR\ 67662,\ Dec.\ 22,\ 1993]$